



CoinDesk Select Sector Indices Methodology

July 2023

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Introduction

Index Objective

The CoinDesk Select Sector Index series are designed to measure the market-capitalization weighted performance of some of the largest and most liquid digital assets classified in eligible DACS sectors that meet certain trading and custody requirements.

Additional Details

The CoinDesk Select Sector Index series (the “Indices”) are based on the Digital Asset Classification Standard (DACS). Constituents of each index must be included in DACS and assigned to the appropriate Sector. For more information on DACS please refer to the DACS [Methodology](#).

This methodology was created by CoinDesk Indices (“CDI”) to achieve the Index Objective stated above. There may be circumstances or market events which require CDI, in its sole discretion, to deviate from these rules to ensure each Index continues to meet its Index Objective. This document should be read in conjunction with the CoinDesk Digital Asset Indices Policy Methodology.

Table 1 provides the list of indices as determined by CoinDesk Indices. This list may expand in the future at the discretion of CDI.

Table 1: List of Indices

| Index Name | Index Ticker | Launch Date | Base Date | Base Value |
|--|--------------|-------------|------------|------------|
| CoinDesk Smart Contract Platform Select Index | SCPX | 03/15/2022 | 03/10/2022 | 1000.00 |
| CoinDesk Smart Contract Platform Select Ex ETH Index | SCPXX | 03/15/2022 | 03/10/2022 | 1000.00 |
| CoinDesk DeFi Select Index | DFX | 07/19/2021 | 05/10/2021 | 1000.00 |
| CoinDesk Currency Select Index | CCYS | 08/30/2022 | 07/18/2022 | 1000.00 |
| CoinDesk Currency Select Ex Bitcoin Index | CCYX | 08/30/2022 | 07/18/2022 | 1000.00 |
| CoinDesk Computing Select Index | CPUS | 08/30/2022 | 07/18/2022 | 1000.00 |
| CoinDesk Culture & Entertainment Select Index | CNES | 08/30/2022 | 07/18/2022 | 1000.00 |
| CoinDesk Market Select Index | CMIS | 12/22/2022 | 07/18/2022 | 1000.00 |

Eligibility criteria

Universe Eligibility

To be included in an Index Universe, a digital asset must meet the following criteria as of the Reconstitution Reference Date:

1. The digital asset must be ranked in the top 200 in the most recently published DACS report and assigned to the appropriate DACS Sector as defined in Table 2.
2. Custodian services for the digital asset must be available from Coinbase Custody, a division of Coinbase Global Inc. and the digital asset must be accessible by U.S. investors.
3. The digital asset must not be categorized as a meme coin as determined by CDI.
4. The digital asset must have traded on at least one Eligible Exchange within the last 30 days up to and including the Reconstitution Reference Date. For details on Eligible Exchanges, refer to the CoinDesk Digital Asset Indices Policy Methodology.

Table 2: DACS Sector Eligibility

| Index Name | DACS Sector Name |
|---|--------------------------------|
| CoinDesk Smart Contract Platform Select Index | Smart Contract Platform |
| CoinDesk DeFi Select Index | Decentralized Finance (“DeFi”) |
| CoinDesk Computing Select Index | Computing |
| CoinDesk Currency Select Index | Currency |
| CoinDesk Culture & Entertainment Select Index | Culture & Entertainment |

Index Construction

Constituent Selection

The constituent selection process targets the largest and most liquid digital assets from the Selection Universe subject to a final constituent count between 5 and 10 inclusive, and buffer rules designed to reduce unnecessary turnover.

All digital assets that pass the *Eligibility Criteria* will be ranked by market capitalization, as of the Reconstitution Reference Date, in descending order. The 20 highest ranked digital assets that meet the Eligibility Criteria form the Selection Universe. In the event there are fewer than 20 digital assets in the Selection Universe, the Index Committee reserves the right to include digital assets ranked beyond the top 200 as described in the *Eligibility Criteria*.

Constituents will be selected from the Selection Universe as follows:

1. For each digital asset in the Selection Universe, calculate the Median Daily Value Traded (MDVT) across eligible exchanges over the previous 30-day calendar period leading up to and including the Reconstitution Reference Date.
2. For each digital asset in the Selection Universe, determine the closing market capitalization as of the Reconstitution Reference Date.
3. Based on the results from Step 1 and Step 2, the market cap and liquidity requirements are determined as follows:
 - a. Non-Constituent Liquidity Requirement = 1.20 times the median MDVT of the Selection Universe
 - b. Non-Constituent Market Cap Requirement = 1.20 times the median closing market cap of the Selection Universe.
 - c. Constituent Liquidity Requirement = median MDVT of the Selection Universe
 - d. Constituent Market Cap Requirement = median closing market cap of the Selection Universe
4. Following the determination of the market cap and liquidity requirements, all digital assets that do not meet all of the following criteria as of the reconstitution reference date will be considered ineligible and, therefore, removed from the Selection Universe:
 - a. Must be a constituent of the CoinDesk Market Index (“CMI”). For more information on the CMI, please refer to the [CoinDesk Market Index Methodology](#).
 - b. Must be supported by a CoinDesk Reference Rate with 3 contributing exchanges .
 - c. Must be included on the Watchlist (as determined during the last reconstitution).
5. All digital assets in the Selection Universe following Step 4 that were included in the Watchlist will be evaluated against the Non-Constituent Liquidity and Non-Constituent Market Cap Requirements. All current constituents in the Selection Universe will be evaluated against the Constituent Liquidity and Constituent Market Cap Requirements. Digital assets that meet or exceed these requirements will be selected as index constituents (see Table 3). Based on the following results:
 - a. If fewer than 6 digital assets are selected, the market cap and liquidity requirements for non-constituents will be relaxed to the requirements for constituents (Note: the digital asset must be included on the Watchlist and in the Selection Universe to be selected).
 - b. If more than 10 digital assets are selected, the digital asset(s) with the smallest market cap will be removed until 10 digital assets remain.
6. If Step 5 results in at least 5 digital assets selected as constituents, the selection process is complete. Otherwise, the market cap and liquidity requirements will be relaxed for constituents and non-constituents until a minimum of 5 constituents are selected. If there are fewer than 5 constituents in the Selection Universe, all digital assets in the Selection Universe will be selected and the constituent count will drop below the minimum of 5.

The Index Committee will review the constituent selection results if the market cap and liquidity criteria need to be relaxed.

Table 3: Selection Requirement:

| Requirement for Inclusion | Non-Constituents | Constituents |
|---|--|---|
| Included in Selection Universe | Yes | Yes |
| Included on latest Watchlist | Yes | No |
| Minimum Markets Test | 3 eligible exchanges | 3 eligible exchanges |
| Closing Market Cap | >= median Market Cap of the Selection Universe * 1.20 | >= median Market Cap of the Selection Universe |
| 30-day Median Daily Value Traded (MDVT) | >= median 30-day MDVT of the Selection Universe * 1.20 | >= median 30-day MDVT of the Selection Universe |

Constituent Weighting

Constituents are market capitalization weighted subject to a minimum weight requirement of one percent. The following process is used to weight constituents at each reconstitution:

1. Determine the preliminary weights of each digital asset selected based on its market capitalization as a percentage of the total market capitalization of all digital assets selected.
2. Rank all digital assets from Step 1 in descending order based on the preliminary weight.
3. To minimize unnecessary turnover, the Minimum Weight Requirement for all current constituents (non-constituents) is 0.80 (1.0) percent respectively. The preliminary weights from Step 2 will be reviewed against the Minimum Weight Requirement.
4. If the preliminary weight of any digital asset from Step 2 is below the applicable Minimum Weight Requirement determined in Step 3 and there are more than 5 digital asset constituents, the following iterative steps are performed:
 - a. Remove the lowest ranked digital asset and redistribute its weights proportionally to all remaining digital assets.
 - b. Repeat Step 4 if the weight of any remaining digital asset is below the applicable Minimum Weight Requirement and there are more than 5 digital asset constituents.
5. The results determined in Step 4 will be the final constituents and weights.

Circulating Supply

At each reconstitution, the circulating supply for each constituent is determined based on the latest circulating supply on the Weighing Reference Date (see Index Maintenance). The circulating supply is not updated between reconstitutions.

Index Calculation

The indices are calculated in real-time using reference rates for each underlying constituent as described below.

Constituent pricing

Real-time reference rates for constituent digital assets are calculated approximately every 5 seconds by CDI using a volume weighted average price (VWAP) across three contributing exchanges over the prior 60 minutes.

The number of contributing exchanges may drop below three between reconstitutions. In the event the number of contributing exchanges drops below three between reconstitutions, the Index Committee will review the eligible exchanges at the end of the month to determine the appropriate course of action.

For more information on constituent pricing, please refer to the CoinDesk Reference Rate [Methodology](#).

Calculation Formula

$$Index_t = Index_{PR} * (1 + \sum_{i=1}^N W_{i,PR} * (\frac{Constituent Price_{i,t}}{Constituent Price_{i,PR}} - 1))$$

where:

Index_t = Index Value at time *t*

Index_{PR} = Index Value as of prior reconstitution effective date

W_{i,PR} = Weight of constituent *i* as of prior reconstitution effective date

N = number of constituents

Constituent Price_{i,t} = Reference Rate for constituent *i* at time *t*

Constituent Price_{i,PR} = Reference Rate for constituent *i* as of prior reconstitution effective date

Index Maintenance

Index Reconstitution

Each index is reviewed on a quarterly basis based on the rules described above. Any index changes resulting from the quarterly review are announced two weeks prior to the

effective date and implemented on the second business day of January, April, July and October. Please see Table 4 for the reconstitution timing.

Table 4: Reconstitution Timing

| Activity Description | Timing | Example Reconstitution Timing |
|---|---|--------------------------------------|
| Reconstitution Reference Date | Announcement Date minus 2 business days | 12/19/2022 |
| Announcement Date | Effective Date minus 14 calendar days (following business day if this is a holiday) | 12/21/2022 |
| Lock-down Circulating Supply (Weighting Reference Date) | Effective Date minus 7 calendar days (following business day if this is a holiday) | 12/28/2022 |
| Effective Date | 4PM Eastern Time on the 2 nd business day of the start of each quarter | 01/04/2023 |

In addition to the quarterly process, constituents are monitored for potential anomalies and trading disruptions. Out-of-review monitoring, which would require an index modification, only applies in extraordinary circumstances. Incident types that would require one or more index modifications are outlined in the CoinDesk Digital Asset Indices Policy Methodology.

Deletions

If a constituent is removed from an index outside of the scheduled reconstitution process, its weight will be set to zero on the removal effective date and it will no longer contribute to index returns. The impacted constituent will be considered for inclusion at future reconstitutions if it meets the Eligibility and Selection Criteria.

Additions

There will be no additions to the index between reconstitutions unless the constituent count drops below 5. If the constituent count drops below 5, the Index Committee will review the eligible universe and determine the appropriate action.

DACS Sector Reclassification

In the event the DACS sector is modified for an existing index constituent between reconstitutions, the impacted constituent will remain in the index until the next scheduled reconstitution. Based on the new sector assignment, the impacted digital asset will be added automatically to the Watchlist for the relevant Select Sector index, if one exists, and be reviewed at the next reconstitution for possible inclusion.

Watchlist

Following the Constituent Selection and Weighting processes, a new Watchlist will be created that will be used for the Constituent Selection for the next Reconstitution. The process to create the Watchlist is as follows:

1. All digital assets in the Selection Universe that were not selected as constituents for the current reconstitution are evaluated against the Constituent Liquidity Requirement and Constituent Market Cap Requirements determined in Step 3 of the Constituent Selection process.
2. All digital assets in Step 1 that meet or exceed both requirements will form the new Watchlist.
3. If the Market Cap and Liquidity Requirements were relaxed as part of the current Constituent Selection process, the Index Committee reserves the right to include additional digital assets on the new Watchlist.

Data Distribution

Real-time index values are calculated 24x7 and are available publicly at <https://coindesk.com/indices/> and are also available to subscribers via REST, WebSocket APIs, and scheduled email updates.

Index Governance

The CoinDesk Index Committee provides ongoing oversight of each Index and its Methodology. For more details on the Index Committee, please refer to the Index Governance section of the CoinDesk Digital Asset Indices Policy Methodology.

Appendix 1: Data sources

This section describes data sources used to maintain, reconstitute, and calculate the Indices. If data is not available for any reason from the sources described in this appendix, other data sources may be used.

Price data

Prices used to calculate VWAPs are sourced from Eligible Exchanges.

Volume data

Volume data used to calculate VWAPs are sourced from Eligible Exchanges.

Reconstitution Data

Market capitalization and circulating supply data are provided by CoinMarketCap.com. Daily notional volume is sourced from eligible exchanges. In the event an exchange does not explicitly provide daily notional, CDI will estimate daily notional for a digital asset using the following formula:

Daily Notional Volume = Daily trading volume * (open price + close price)/2

Other data

The availability of requisite custodian services for digital assets is obtained directly from the custody provider(s).

Appendix 2: CoinDesk Smart Contract Platform Select Ex ETH Index

The CoinDesk Smart Contract Platform Select Ex ETH Index (“SCPXX”) measures the market capitalization weighted performance of the constituents of the CoinDesk Smart Contract Platform Select Index (“SCPX”) excluding Ethereum.

SCPXX follows the same maintenance and reconstitution schedule as SCPX.

At each reconstitution, the new list of constituents for SCPX, excluding Ethereum, are selected and form the index. The weight of Ethereum is proportionally redistributed to the remaining constituents. The final constituents are weighted by market capitalization.

Appendix 3: CoinDesk Currency Select Ex Bitcoin Index

The CoinDesk Currency Select Ex Bitcoin Index (“CCYX”) measures the market capitalization weighted performance of the constituents of the CoinDesk Currency Select Index (“CCYS”) excluding Bitcoin.

CCYX follows the same maintenance and reconstitution schedule as CCYS.

At each reconstitution, the new list of constituents for CCYS, excluding Bitcoin, are selected and form the index. The weight of Bitcoin is proportionally redistributed to the remaining constituents. The final constituents are weighted by market capitalization.

Appendix 4: CoinDesk Market Select Index

The CoinDesk Market Select Index (“CMI Select”) measures the market capitalization weighted performance of the constituents of the CoinDesk Select Sector Indices listed in Table 5.

Table 5: CMI Select Index Constituents

| Index Name | Index Ticker |
|---|--------------|
| CoinDesk Smart Contract Platform Select Index | SCPX |
| CoinDesk DeFi Select Index | DFX |
| CoinDesk Currency Select Index | CCYS |
| CoinDesk Computing Select Index | CPUS |
| CoinDesk Culture & Entertainment Select Index | CNES |

Index Maintenance

The constituents of the CMI Select is made up of the constituents of the underlying CoinDesk Select Sector Indices listed in Table 5 and follows the same maintenance, calculation, and reconstitution procedures as the underlying indices.

Constituent Weighting

Constituents are market capitalization weighted.

Additions

In the event a new select sector index becomes available, the Index Committee will determine whether the index will be added as a constituent of the CMI Select.

Deletions

CoinDesk Indices reserves the right to remove a constituent from the CMI Select in the event the underlying index is terminated or no longer representative.

Appendix 5: Methodology Changes

The table below is a summary of modifications to this Methodology.

| Effective Date | Prior Treatment | Updated Treatment | Material Change |
|-----------------|--|---|-----------------|
| 12/21/2022 | N/A | Digital asset must be included in CMI to be eligible for inclusion. | No |
| 12/21/2022 | Weighting Reference Date 2 business prior to Effective Date | Weighting Reference Date 7 calendar day prior to Effective Date | No |
| July 2022 Recon | CoinDesk DeFi Index (DFX) followed its own Index Methodology (available upon request). | Index renamed to CoinDesk DeFi Select Index (DFX) and follows the CoinDesk Select Sector Methodology. | Yes |
| July 2022 Recon | Minimum weight requirement of 1.0% for constituents and non-constituents. | Minimum weight requirement buffer introduced as follows: Constituents = 0.8% Non-constituents = 1.0% | No |
| 06/26/2022 | Constituents are re-weighted daily at 4PM using a 24-hour VWAP. This weight is used for the following 24-hour calculation. | Constituent weights are reset at each reconstitution and the calculation formula is modified to a weighted return algorithm based on each constituent's performance since the prior reconstitution. | Yes |

Appendix 6: Document Revision History

| Timing | Description |
|------------|--|
| 7/21/2023 | Minor updates and clarifications |
| 3/6/2023 | Annual Methodology Review including minor updates and clarifications |
| 12/21/2022 | <ul style="list-style-type: none"> -Updates to Index Selection language -Removed reference to stablecoins in Eligibility section as stablecoins is a separate sector in DACS. -Updates to Constituent Pricing section to refer to the CoinDesk Reference Rate methodology -Addition of new index – CMIS -Updates to Data Sources appendix related to determination of notional volume |
| 05/04/2022 | Inclusion of DFX in document + minor edits |
| 08/29/2022 | Addition of CCYS, CCYX, CPUS, CNES Indices |
| 6/14/2022 | Updates to methodology included in Methodology Change table effective June 25, 2022; removal of Reference Rate Appendix; other clarifications and minor updates to Constituent Selection and Watchlist sections. |
| 05/04/2022 | Inclusion of DFX in document + minor edits |
| 4/4/2022 | Revision: Update Reference Rate Contributing Exchanges |
| 03/12/2022 | Initial Version |

Disclaimer

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